BRUHAT BANGALORE MAHANAGARA PALIKE

YELAHANKA ZONE

Name of work: **Estimate for Improvements to Roads, drains and other works at Raghuram Layout in Ward No. 11(Kuvempunagara), Vidyaranyapura Sub Division.**

			Est Cost Rs.					**2700000.00**	
Sl. No	Description	Unit	No.	L	B	D	Qty	Rate	Amount
1	KSRRB 300-1. Earth work excavation by manual means in ordinary soil involving an average horizontal throw upto 2 meters and an average lift upto 0.5m, excavated surface leveled and sides neatly dressed, the disposed earth to be leveled neatly after breaking of clods complete as per specifications complete as per specifications MORTH chapter 3. **Page No. 142 / Item No. 19.1 / PWD SR 2016-17**	Cum							
	Drain Desilting		2	72.00	0.45	0.30	19.44		
	Devappa Layout Main Road		2	178.00	0.45	0.30	48.06		
			2	120.00	0.45	0.30	32.40		
	For RCC Drain		1	90.00	0.90	0.90	72.90		
	Basic Rate	82.00					**172.80**	199.36	**34450.00**
	Add loading and unloading Charges **It No 17.1 KSRRB M 100-1**	68.00							
	Average weight of earth 1.28 tonne / kg for 11.90 Km = 1.28 T X 11.90Km X 2.5 Tonne / km = 38.08	38.08							
		188.08							
	Area Weightage @ 6%	11.28							
	Total	**199.36**							
2	Removing and refixing stone slabs of drains and pointing in CM (1:3) **Page No. 25 / Item No. 5.33 PWD SR 2016-17**	Sqm							
			2	72.00	178	1.35	194.40		
	Devappa Layout Main Road		1	178.00		1.35	240.30		
			1	120.00	120	1.35	162.00		
	Basic Rate	76.00					**596.70**	80.56	**48070.00**
	Area Weightage @ 6%	4.56							
	Total	**80.56**							
3	Providing granite slabs of selected quality roughly dressed havinf a size of 7.5 cms thick and fixed in cement mortar (1:6) including fixing curing ete., complete **Page No. 25 / Item No. 5.31.1 PWD SR 2016-17**	Sqm							
			Qty Vide Item No. 2				184.98		
	Basic Rate	628.00					**184.98**	665.68	**123135.00**
	Area Weightage @ 6%	37.68							
	Total	**665.68**							
4	KSRB 2.8 : Providing and **Filling in foundation with granite / trap broken metal** 100mm. and down size, with approved sand including hand packing, ramming, watering, including cost of all materials and labour with all lead and lift. complete as per specifications. specification. No. KBS **Page No. 5 / Item No. 2.15 of PWD SR 2016-17**	Cum							

Sl. No	Description	Unit	No.	L	B	D	Qty	Rate	Amount
	Devappa Layout Main Road		1	178.00	0.45	0.30	24.03		
			1	120.00	0.45	0.30	16.20		
	Basic Rate	2114.00					**40.23**	2240.84	**90149.00**
	Area Weightage @ 6%	126.84							
	Total	**2240.84**							
5	KSRRB 300-47. Scarifying kankar / gravel / metal crust upto 150mm thick with pick axes and disposal of stuff including cost of all labour charges complete as per specifications. MORTH / Chapter 3 **Page No. 147 / Item No. 19.53 PWD SR 2016-17**	Sqm							
	cross road 1		1	72.00	4.50		324.00		
	Basic Rate	25.00					**324.00**	26.50	**8586.00**
	Area Weightage @ 6%	1.50							
	Total	**26.50**							
6	KSRRB M400-6.1. Construction of granular sub-base by providing close graded crushed stone aggregates of granite / trap / basalt material, mixing in a mechaical mix plant at OMC, carriage of mixed material to work site, spreading in uniform layers with motor grader on prepared surface and compacting with vibratory power roller to achieve the desired density, complete as per specifications. A. Plant Mix Method. - For Grading II Material **Page No. 154, Item No. 20.4.2 PWD SR 2016-17**	Cum							
	cross road 1		1	72.00	4.50	0.15	48.60		
	Basic Rate	1571.00					**48.60**	1665.26	**80932.00**
	Area Weightage @ 6%	94.26							
	Total	**1665.26**							
7	KSRB 4-1.3 : Providing and laying in position plain cement concrete of **mix 1:4:8 with OPC cement @ 180 kgs with 40mm** and down size graded granite metal coarse aggregates @ 0.85cum and fine aggregares @ 0.57 cum machine mixed, concrete laid in layers not, exceeding 15cms, thick, well compacted, in foundation and plinth, including cost of all materials, labour, HOM of machinery, curing complete as per specifications. Specification No. KBS 4.1,4.2. **No. 12 / Item No. 4.3 / PWD SR 2016-17**	Cum							
	cross road 1		1	72.00	4.50	0.15	48.60		
	Devappa Layout Main Road		2	178.00	0.30	0.15	16.02		
			2	120.00	0.30	0.15	10.80		
			1	90.00	0.90	0.15	12.15		
	Basic Rate	4867.00					**87.57**	5159.02	**451775.00**
	Area Weightage @ 6%	292.02							
	Total	**5159.02**							

Sl. No	Description	Unit	No.	L	B	D	Qty	Rate	Amount
8	Cement concrete pavement.Construction of un-reinforced plain cement concrete pavement, thickness as per design, over a prepared sub base with OPC cement or any other type as per clause 1051.2.2 design mix M20/M30 , with 25mm and down size graded granite metal coarse aggregates and fine aggregtes , with superplastisiser @3lts confirming to IS9103-1999 Reaffirmed-2008 , mixed in a concrete mixer of not less than 0.6 cum capacity and appropriate weigh batcher as per approved mix design, laid in approved fixed side form work (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates including levelling the form work as per drawing). Spreading the concrete with shovels, rackers compacted using needle, screed and plate vibrator and finished in a continuous operation including provision of contraction, expansion, construction and longitudinal joints including groove cutting charges, joint filler, separation membrane, selant primer, joint sealant, admixtures as approved, curing compound, finishing to lines and grades as per drawing complete as per specifications. **- M20 (at 300Kg per cum coarse aggregate @**	Cum							
	Main Road		1	72.00	4.50	0.125	40.50		
	Basic Rate	5197.00					**40.50**	5508.82	**223107.00**
	Area Weightage @ 6%	311.82							
	Total	**5508.82**							
9	Providing and laying **cement concrete** using 20 mm and down size granite coarse aggregates and fine aggregates of ready mixed concrete **(RMC) M 20** for R.C.C works laid in 15 cms thick layers and well compacted vibrating, curing, **for raft foundation column footing , main and secondary beams** with all lead and lifts etc., complete (exclusive of cost of steel and fabrication charges.) **Page No. 18, Item No. 4.48, PWD SR 2016-17**	Cum							
	Bottom Concrete		1	90.00	0.90	0.15	12.15		
	Side Wall		2	90.00	0.15	0.60	16.20		
	Basic Rate	5879.00					**28.35**	6231.74	**176670.00**
	Area Weightage @ 6%	352.74							
	Total	**6231.74**							
10	KSRB 4-6.4 : Providing and removing **centering, shuttering, strutting, propping** etc., and removal of form work for **vertical surface** such as walls at any thickness, including attached pilasters, buttresses, plinth cills and string courses cost of all materials, labour complete as per specifications. Specification No. KBS 4.6.2 **Page No. 15 / It No. 4.31 PWD SR 2016-17**	Sqm							
			4	90.00		0.60	216.00		
	Basic Rate	293.00					**216.00**	310.58	**67085.00**
	Area Weightage @ 6%	17.58							
	Total	**310.58**							

Sl. No	Description	Unit	No.	L	B	D	Qty	Rate	Amount
11	KSRB 4.9.2 : Providing **T.M.T steel reinforcement for R.C.C work** including straightening, cutting, bending, hooking, placing in position, lapping and / or welding wherever required, tying with binding wire and anchoring to the adjoining members wherever necessary complete as per design (laps, hooks and wastage shall not be measured and paid) cost of materials, labour, HOM of machinery complete as per specifications. Specification No. KBS 4.6.3 **- TMT bars Fe 500 Page No. 17 / Item No. 4.46.2, PWD SR 2016-17**	Tonne							
				28.35	0.06 T/cum		**1.70**	64243.42	**109278.00**
	Basic Rate	60607.00							
	Area Weightage @ 6%	3636.42							
	Total	**64243.42**							
12	KSRB 5-14 : Providing and constructing load bearing wall with solid concrete blocks of size **400x200x200 mm** having block density not lessthan 1800 kg/m3 and having a minimum average compressive strength 4.00 N/mm2 confirming to IS 2185 (Part) : 2005 and constructed with CM 1:4 , as per IS 2572:2005 including cost of all materials, labour charegs, scaffolding, curing complete as per specifications. KBS No.5.4 **Page No. 25 / Item No. 5.26.1, PWD SR 2016-17**	Sqm							
	Devappa Layout Main Road		2	178.00		0.40	142.40		
			2	120.00		0.40	96.00		
	Basic Rate	937.00					**238.40**	993.22	**236784.00**
	Area Weightage @ 6%	56.22							
	Total	**993.22**							
13	KSRB 4-1.6 ; Providing and laying in position **plain cement concrete of mix 1:2:4** with cement @ 240kgs, with 20mm and down size graded granite metal coarse aggregates @ 0.69 cum and fine aggregtes @ 0.459cum, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, **in foundation, plinth and cills**, ncluding cost of all materials, labour, HOM of machinery, curing complete as per specifications. Specification No. KBS 4.1, 4.2. **Page No.12, Item No. 4.6 PWD SR 2016-17**	Cum							
	Bed Concrete		1	178.00	0.45	0.10	8.01		
			1	120.00	0.45	0.10	5.40		
	Coping Concrete		2	178.00	0.20	0.10	7.12		
			2	120.00	0.20	0.10	4.80		
	Basic Rate	5441.00					**25.33**	5767.46	**146090.00**
	Area Weightage @ 6%	326.46							
	Total	**5767.46**							
14	Providing **precast slab of 100 mm thick** including cost of all materials, labour, curing, transportation, loading unloading, etc., complete as per the direction of engineer in charge- Data rate	Sqm							
	RCC Drain Slab		297	0.90	0.60		160.20		
			200	0.90	0.60		108.00		
			150	0.90	0.60		81.00		

Sl. No	Description	Unit	No.	L	B	D	Qty	Rate	Amount
							349.20	1820.56	**635740.00**
	Sub Total								**2431851.00**
	KRIDL Charges @ 10%								**243185.00**
	Labour Cess @ 1%								**24319.00**
	Add for unforseen and rounding off	L/S							**645.00**
								Total	**2700000.00**
Rupees Twenty Seven lakhs only									

Certificate:

1 The work spot has been inspected and the work is found necessary.
2 This estimate is prepared as per P.W.D S.R of 2016-17.
3 This work included under 2017-18 24.10% Grant.
4 The provisions were made in this estimate are necessary and adequate.
5 This works come under B.B.M.P. limits.

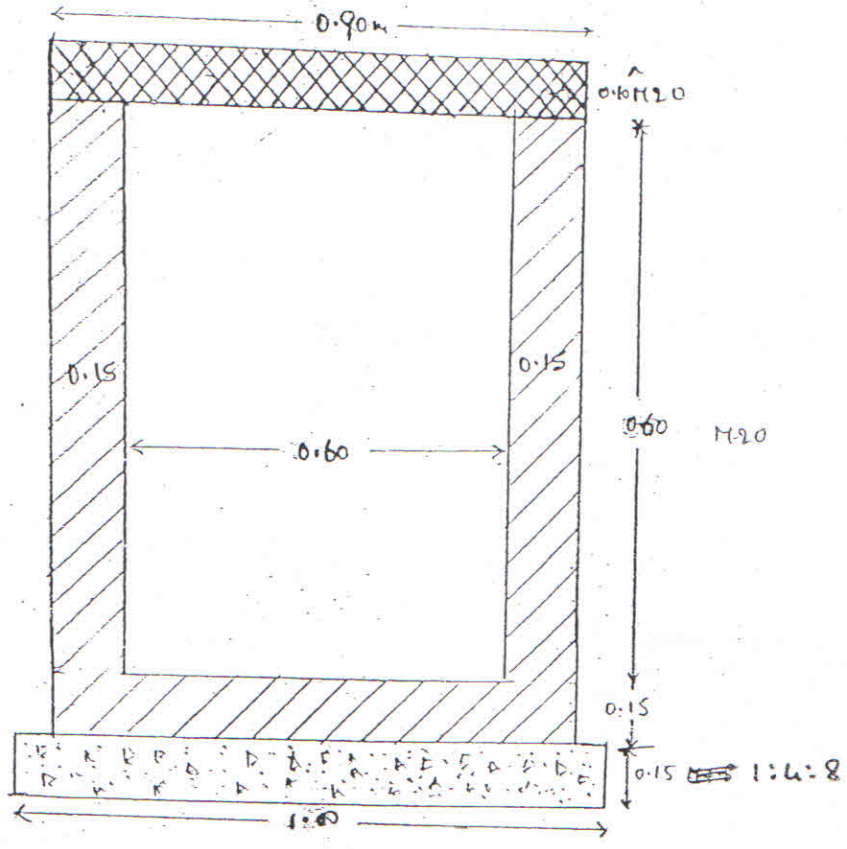
Assistant Engineer
Ward No. 11

Assistant Executive Engineer
Bruhat Bangalore Mahanagara Palike
Vidyaranyapura Sub Division

Executive Engineer
Bruhat Bangalore Mahanagara Palike
Byatarayanapura Division

ADMINISTRATIVE APPROVAL
Accorded For Rs. Twenty seven lakhs only
Head of A/c P-1878
Div. Ref. No. 78/17-18 Date 14/12/17
AE
EE(BTP)

Technical Sanction
Accorded For 27.00 Lakhs
Head of A/C P.1878
CER NO : 590/17-18 Dtl. 02.02.18
TA CE (YNK)



CROSS SECTION OF CC DRAIN